



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0612; Project Identifier MCAI-2021-00650-R]

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.a. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to issue a new AD to supersede emergency Airworthiness Directive (AD) 2018-23-52, which applies to all Leonardo S.p.a. Model AW169 and AW189 helicopters. AD 2018-23-52 requires inspecting the nut, cotter pin, lock-wire, and hinge bracket connected to the tail rotor servo-actuator (TRA) feedback lever link, and each connection of the TRA feedback lever link, and repair if necessary. AD 2018-23-52 also requires applying a paint stripe or torque seal on the nut and reporting certain information. Since the FAA issued AD 2018-23-52, the FAA has determined certain inspections and checks of the tail rotor duplex bearings (TR DB), installation of an improved TRA and TR DB, certain other actions, and applicable corrective actions are necessary to address the unsafe condition. This proposed AD would require repetitive inspections of the TRA, repetitive inspections and checks of the TR DB, installation of an improved TRA and TR DB, repetitive installations and checks of thermal strips, replacement of improved TR DB (life limit), and applicable corrective actions, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference (IBR). The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For material that is proposed for IBR in this AD, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this IBR material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110. It is also available in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0612.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0612; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the EASA AD, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include

“Docket No. FAA-2021-0612; Project Identifier MCAI-2021-00650-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued Emergency AD 2018-23-52, Product Identifier 2018-SW-093-AD, dated November 8, 2018 (Emergency AD 2018-23-52), which applies to all Leonardo S.p.a. Model AW169 and AW189 helicopters. Emergency AD 2018-23-52 requires inspecting the nut, cotter pin, lock-wire, and hinge bracket

connected to the TRA feedback lever link, and each connection of the TRA feedback lever link, and repair if necessary. Emergency AD 2018-23-52 also requires applying a paint stripe or torque seal on the nut and reporting certain information. The FAA issued Emergency AD 2018-23-52 to address failure of the TRA feedback lever. This condition could result in loss of tail rotor (TR) control and subsequent loss of control of the helicopter.

Actions Since AD 2018-23-52 Was Issued

Since the FAA issued Emergency AD 2018-23-52, the agency determined certain inspections and checks of the TR DB, installation of an improved TRA and an improved TR DB, certain other actions, and applicable corrective actions are necessary to address the unsafe condition.

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2020-0197, dated September 10, 2020 (EASA AD 2020-0197), to correct an unsafe condition for all Leonardo S.p.A. (formerly Finmeccanica S.p.A., AgustaWestland S.p.A.) Model AW169 and AW189 helicopters.

This proposed AD was prompted by a report of an accident of a Model AW169 helicopter, which was observed to have lost yaw control prior to the accident and a determination that additional actions are necessary to address the unsafe condition identified in Emergency AD 2018-23-52. The FAA is proposing this AD to address failure of the TRA feedback lever. This condition could result in loss of TR control and subsequent loss of control of the helicopter. See EASA AD 2020-0197 for additional background information.

Related Service Information Under 1 CFR Part 51

EASA AD 2020-0197 requires the following actions:

- Repetitive inspections of the slippage marking of the castellated nut installed on the back-end of the affected TRA.
- Repetitive inspections of the roughness and breakaway force of the affected TR DB.
- Repetitive installations of a thermal strip on the spacer next to the TR DB.

- Repetitive checks of the condition of the thermal strip and the indicated temperature.
- Repetitive inspections/checks for particles and additional roughness of the TR DB.
- Installation of an improved TRA.
- Installation of an improved TR DB.
- Repetitive replacements of the improved TR DB (life limit).
- An inspection of an affected TR DB if the thermal strip is detached, partially detached or unreadable.
- Reporting information to the manufacturer.
- Sending parts to the manufacturer.
- Applicable corrective actions.

Corrective actions include accomplishing instructions to address the following findings: evidence of rotation of an affected TRA nut; thermal strip temperatures that exceed specified values; and any discrepancies found during the inspection of an affected TR DB. Discrepancies include roughness (meaning lack of free and easy rotation), measured breakaway force(s) outside the allowed range, any wear or other damage (including, but not limited to, broken seals), and the presence of particles.

EASA AD 2020-0197 also prohibits (re)installation of an affected TRA and an affected TR DB on a helicopter. EASA AD 2020-0197 also specifies, for certain helicopters, terminating action for the repetitive inspections of the slippage marking of the castellated nut.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that

the unsafe condition described previously is likely to exist or develop on other helicopters of these same type designs.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified EASA AD 2020-0197, described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this proposed AD and except as discussed under “Differences Between this Proposed AD and EASA AD 2020-0197.”

Explanation of Required Compliance Information

In the FAA’s ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate EASA AD 2020-0197 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2020-0197 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in EASA AD 2020-0197 does not mean that operators need comply only with that section. For example, where the AD requirement refers to “all required actions and compliance times,” compliance with this AD requirement is not limited to the section titled “Required Action(s) and Compliance Time(s)” in EASA AD 2020-0197. Service information required by EASA AD 2020-0197 for compliance will be available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0612 after the FAA final rule is published.

Differences Between this Proposed AD and EASA AD 2020-0197

EASA AD 2020-0197 requires sending parts to the manufacturer. This proposed AD would not require that action.

EASA AD 2020-0197 specifies the earlier revisions of Leonardo S.p.A. Emergency Alert Service Bulletin (EASB) 169-148, Revision D, dated August 4, 2020; and Leonardo S.p.A. EASB 189-237, Revision D, dated August 4, 2020; are acceptable

for compliance for certain actions. This proposed AD would not allow credit for the earlier revisions.

Where Note 1 of EASA AD 2020-0197 allows a non-cumulative tolerance of 10 percent to be applied to the compliance times for the actions to allow for synchronization of the required actions with other maintenance tasks, this proposed AD would not allow that tolerance.

Interim Action

The FAA considers this proposed AD to be an interim action and further AD action might follow.

Costs of Compliance

The FAA estimates that this proposed AD affects 10 helicopters of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions				
Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections and checks	Up to 9 work-hours X \$85 per hour = \$765, per inspection/check cycle	\$0	Up to \$765, per inspection/check cycle	Up to \$7,650, per inspection/check cycle
Thermal strip installation	1 work-hour X \$85 per hour = \$85, per installation cycle	\$4	\$89, per installation cycle	\$890, per installation cycle
Installation of improved TRA and TR DB	Up to 18 work-hours X \$85 per hour = \$1,530	Up to \$39,000	Up to \$40,530	Up to \$405,300
Replacement of improved TR DB	10 work-hours X \$85 per hour = \$850, per replacement cycle	\$1,500	\$2,350, per replacement cycle	\$23,500, per replacement cycle

The FAA estimates that it would take about 1 hour per product to comply with the proposed on-condition reporting requirement in this proposed AD. The average labor rate is \$85 per hour. Based on these figures, the FAA estimates the cost of reporting the inspection and check results on U.S. operators to be \$85 per product.

The FAA estimates the following costs to do any necessary on-condition inspections and thermal strip installations that would be required based on the results of any required actions. The FAA has no way of determining the number of helicopters that might need these on-condition actions:

Estimated costs of on-condition inspections and installations

Labor cost	Parts cost	Cost per product
4 work-hours X \$85 per hour = \$340	\$0	\$340

The FAA has received no definitive data that would enable the agency to provide cost estimates for the other on-condition actions specified in this proposed AD.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to take approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Leonardo S.p.a.: Docket No. FAA-2021-0612; Project Identifier MCAI-2021-00650-R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces Emergency AD 2018-23-52, Product Identifier 2018-SW-093-AD, dated November 8, 2018 (Emergency AD 2018-23-52).

(c) Applicability

This AD applies to all Leonardo S.p.a. Model AW169 and AW189 helicopters, certificated in any category.

(d) Subject

Joint Aircraft Service Component (JASC) Code 6400, Tail Rotor System.

(e) Unsafe Condition

This AD was prompted by a report of an accident of a Model AW169 helicopter, which was observed to have lost yaw control prior to the accident. The FAA is issuing this AD to address failure of the tail rotor servo-actuator (TRA) feedback lever. This condition could result in loss of tail rotor control and subsequent loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2020-0197, dated September 10, 2020 (EASA AD 2020-0197).

(h) Exceptions to EASA AD 2020-0197

(1) Where EASA AD 2020-0197 requires compliance in terms of flight hours, this AD requires using hours time-in-service.

(2) This AD does not allow the compliance time tolerance specified in Note 1 of EASA AD 2020-0197.

(3) The initial compliance time for the inspection specified in paragraph (1) of EASA AD 2020-0197 is within the compliance time specified in paragraph (1) of EASA AD 2020-0197, except for Group 1 helicopters on which the inspection identified in paragraph (1) of EASA AD 2020-0197 has not been done, the initial inspection is within 10 hours time-in-service after the effective date of this AD.

(4) The initial compliance time for the inspection specified in paragraph (2) of EASA AD 2020-0197 is within the compliance time specified in paragraph (2) of EASA AD 2020-0197, except for Group 1 and 2 helicopters on which the inspection identified in paragraph (2) of EASA AD 2020-0197 has not been done, the initial compliance time is within 50 hours time-in-service after the effective date of this AD.

(5) The initial compliance time for the installation specified in paragraph (3) of EASA AD 2020-0197 is within the compliance time specified in paragraph (3) of EASA AD 2020-0197, except for Group 1 and 2 helicopters on which the installation identified in paragraph (3) of EASA AD 2020-0197 has not been done, the initial compliance time is within 20 hours time-in-service after the effective date of this AD.

(6) The initial compliance time for the check (inspection) specified in paragraph (4) of EASA AD 2020-0197 is within the compliance time specified in paragraph (4) of EASA AD 2020-0197, except for Group 1 and 2 helicopters on which the check (inspection) identified in paragraph (4) of EASA AD 2020-0197 has not been done, the initial compliance time is within 10 hours time-in-service after the effective date of this AD.

(7) The initial compliance time for the inspection/check specified in paragraph (5) of EASA AD 2020-0197 is within the compliance time specified in paragraph (5) of EASA AD 2020-0197 except for Group 1 and 2 helicopters on which the inspection identified in paragraph (5) of EASA AD 2020-0197 has not been done, the initial compliance time is within 10 hours time-in-service after the effective date of this AD.

(8) Where paragraphs (6), (8), (9), and (11) of EASA AD 2020-0197 specify contacting Leonardo for corrective action instructions, the corrective action instructions must be accomplished in accordance with FAA-approved procedures.

(9) Where paragraphs (9) and (10) of EASA AD 2020-0197 use the term “discrepancy,” for this AD, discrepancies include roughness (meaning lack of free and easy rotation), measured breakaway force(s) outside the allowed range specified in the service information identified in paragraphs (2) and (7) of EASA AD 2020-0197, any wear or other damage (including, but not limited to, broken seals), and the presence of particles.

(10) Where paragraph (12) of EASA AD 2020-0197 requires reporting results to the manufacturer “as required by paragraphs (12.1) and (12.2) of this [EASA] AD”, for this AD, only report the inspection and check results specified in paragraph (12.1) of EASA AD 2020-0197. Submit the report at the applicable time in paragraph (h)(10)(i) or (ii) of this AD.

(i) If the inspection or check was done on or after the effective date of this AD: Submit the report within 2 days after the inspection or check.

(ii) If the inspection or check was done before the effective date of this AD: Submit the report within 2 days after the effective date of this AD.

(11) Where paragraph (13) of EASA AD 2020-0197, and the service information specified in EASA AD 2020-0197, specify returning parts and grease containers to the manufacturer, this AD does not include those requirements.

(12) Where EASA AD 2020-0197 requires compliance from March 20, 2020 (the effective date of EASA AD 2020-0048, dated March 6, 2020), this AD requires using the effective date of this AD.

(13) Where EASA AD 2020-0197 requires compliance from its effective date, this AD requires using the effective date of this AD.

(14) This AD does not allow credit for the actions specified in EASA AD 2020-0197 if those actions were done using the service information specified in paragraphs (h)(14)(i) through (ix) of this AD:

(i) Leonardo S.p.A. Emergency Alert Service Bulletin (EASB) 169-148, dated May 29, 2019;

(ii) Leonardo S.p.A. EASB 169-148, Revision A, dated September 5, 2019;

(iii) Leonardo S.p.A. EASB 169-148, Revision B, dated February 4, 2020;

(iv) Leonardo S.p.A. EASB 169-148, Revision C, dated April 6, 2020;
(v) Leonardo S.p.A. EASB 189-237, dated May 29, 2019;
(vi) Leonardo S.p.A. EASB 189-237, Revision A, dated September 5, 2019;
(vii) Leonardo S.p.A. EASB 189-237, Revision B, dated February 4, 2020;
(viii) Leonardo S.p.A. EASB 189-237, Revision B, dated February 4, 2020, with
Errata Corrige;

(ix) Leonardo S.p.A. EASB 189-237, Revision C, dated April 6, 2020.

(15) This AD does not require the “Remarks” section of EASA AD 2020-0197.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (j)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

(1) For EASA AD 2020-0197, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu.. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. This material may be found in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0612.

(2) For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance &

Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590;
telephone (516) 228-7330; email andrea.jimenez@faa.gov.

Issued on July 27, 2021.

Ross Landes, Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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